# MEDICAL PROCEEDINGS

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H. H. Shapiro, B.A., Ph.D., M.B., Ch.B., F.R.S.S.Af.

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## EDITORIAL · REDAKSIONEEL

### METHOHEXITAL*: A NEW ULTRA-SHORT-ACTING BARBITURATE ANAESTHETIC

At the International Conference of Anesthesiology held in Toronto in September 1960,† an interesting communication on a new, extremely rapidly acting barbiturate derivative was reported. Its chemical structure is illustrated in Fig. 1. It differs fundamentally from the known thiobarbiturates, *inter alia,* in that it contains no sulphur, which is probably the reason why the use of this anaesthetic agent is strikingly unaccompanied by unpleasant smell-taste sensations (sulphurous, oniony), a not uncommon experience with the routine use of the conventional thiobarbiturates.

Its value has been clinically established with trials involving more than 50,000 patients, thus substantiating the claim that it is a reliable intravenous anaesthetic, capable of producing smooth and rapid induction, adequate maintenance and prompt awakening.

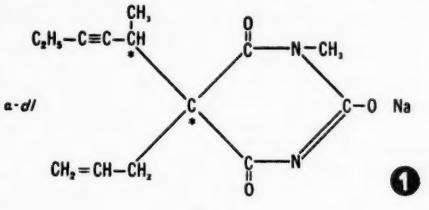


*Fig.* 1

In a series of 200 unselected cases reported by Weyl *et al.*[1] from the Department of Anesthesiology, Mt. Sinai Hospital, laryngospasm

* Marketed by Eli Lilly and Co. in South Africa as *Brietal*.

† The quinquennial meeting of the World Federation of Societies of Anaesthesiologists.

1. Weyl, R., Unal, B. and Alper, Y. (1958): Surg. Gynecol. Obstet., **107**, 588.

### METOHEKSITAAL*: 'N NUWE BARBITURAATANESTHETICUM MET 'N ULTRAKORT EFFEK

'n Interessante referaat oor 'n nuwe, besonder vinnig werkende barbituraatderivaat is in September 1960† op die Internasionale Anesthesiologiese Konferensie in Toronto gelewer. Die chemiese struktuur daarvan word in Tekening 1 geïllustreer. Dit verskil fundamenteel van die bekende tiobarbiturate, onder meer omdat dit geen swawel bevat nie. Dit is waarskynlik die rede waarom die gebruik van hierdie narkosemiddel opvallend onvergesel gaan van onaangename reuk-smaak-gewaarwordinge (swawel-, uiagtig), 'n ondervinding wat dikwels op die roetine-gebruik van die konvensionele tiobarbiturate volg.

Die waarde daarvan is klinies bewys in die loop van proefnemings met meer as 50,000 pasiënte. Hierdie toetse het die aanspraak dat dit 'n veilige, binneaarse narkosemiddel is, met egalige en vinnige induksie, doeltreffende instandhouding en vinnige ontwaking, ten volle gestaaf.

In 'n reeks van 200 onuitgesoekte gevalle, gerapporteer deur Weyl *et al.*,[1] van die De-

* Bemark as *Brietal* in Suid-Afrika deur Eli Lilly & Co.

† Die 5-jarige vergadering van die Wêreldfederasie van Narkotiseurverenigings.

1. Weyl, R., Unal, B. en Alper, Y. (1958): Surg. Gynecol. Obstet., **107**, 588.

or bronchospasm was not noted. Good jaw relaxation was obtained so that a pharyngeal airway could be introduced early.

Methohexital appeared to be metabolized very rapidly and recovery from the anaesthetic procedure was remarkably prompt and without sequelae, e.g. vomiting and retching. Mental clarity and orientation were rapidly attained.

The drug does not appear to become localized in fatty depots, with subsequent 'leaking' into the circulation, as may occur with some barbiturates for as long as 24 hours after the injection. Because methohexital does not get side-tracked in the patient's tissues, there are minimal post-anaesthetic effects such as dizziness, drowsiness or gastro-intestinal disturbances.

The American Automobile Association conducted an interesting experiment, testing the reaction time after methohexital. The subjects were required to turn a driving wheel or apply brakes after an appropriate signal. After comparable doses of other short-acting intravenous barbiturates, it became clear that complete recovery from methohexital was about twice as quick. The subjects also confirmed the diminished sensation of 'hang-over' and their greater mental clarity after this drug. This is an important reason for its advantageous use in outpatient subjects.

The indications at present emphasize its value in brief procedures such as reduction of fractures, gynaecological examinations, pre-electroconvulsive therapy, genito-urinary procedures, oral surgery, and similar short operations. Complete hypnosis is obtained within 30–40 seconds after induction and the drug can be used in conjunction with the usual inhalants and relaxants.

We understand that clinical trials on methohexital are being carried out in South Africa, with satisfactory and encouraging results.

partement Anesthesiologie aan die Mount Sinai-hospitaal, is strottehoofkramp en lugpypkramp glad nie teëgekom nie. Goeie kaakverslapping is bewerkstellig sodat 'n keelholtelugweg reeds op 'n vroeë stadium geïntroduseer kon word.

Dit skyn asof metoheksitaal baie vinnig gemetaboliseer word, en herstel van die narkoseprosedure het merkwaardig vinnig geskied, en sonder enige slegte gevolge soos braking of braakbewegings. Geesteshelderheid en oriëntering is vinnig verkry.

Die middel word skynbaar nie in vetdépôts gelokaliseer met daaropvolgende ‚uitlekking' in die bloedsomloop (soos in die geval van sommige barbiturate) gedurende 'n tydperk van soveel soos 24 uur na inspuiting nie. Omdat metoheksitaal nie op 'n syspoor in die pasiënt se weefsels gebring word nie, bly na-narkose-effekte soos duiseligheid, lomerigheid of maagdermversteurings tot 'n minimum beperk.

Die Amerikaanse Outomobielvereniging het 'n interessante proefneming gedoen om die reaksietyd na die toediening van metoheksitaal vas te stel. Van die proefpersone is verlang om 'n stuurwiel te draai of remme aan te slaan nadat hulle 'n geskikte teken ontvang het. Na die toediening van vergelykbare dosisse van ander binne-aarse barbiturate met 'n kortstondige effek was dit duidelik dat volledige herstel ná metoheksitaal-toediening ongeveer twee keer vinniger geskied. Die proefpersone het ook bevestig dat hulle glad nie so olik gevoel het nie, en dat hul brein veel wakkerder was nadat hulle met hierdie middel behandel is. Dit is 'n belangrike rede vir die nuttige gebruik daarvan in die geval van buitepasiënte.

Die indikasies op die oomblik beklemtoon die waarde daarvan vir kort prosedures, soos die reduksie van beenbreuke, ginekologiese ondersoek, voorelektrokonvulsieterapie, geslags-urinêre prosedures, mondchirurgie en dergelike kort operasies. Volledige hipnose word binne 30–40 sekondes ná induksie bewerkstellig, en metoheksitaal kan saam met gewone inasemings- en verslappingsmiddels gebruik word.

Ons verneem dat kliniese proefnemings met metoheksitaal in Suid-Afrika gedoen word, en dat die resultate bevredigend en bemoedigend is.

## THE ORLI SCHOOL FOR BRAIN-INJURED CHILDREN

Last year[1] we welcomed the establishment of the first school in South Africa specially geared to the needs of brain-injured children who are overactive and easily distractible and have defective perception and judgment. They are also emotionally disordered, but their EEG's are normal, they are not spastic and they are educable, i.e. their IQ's are normal as far as this can be determined.

1. Editorial (1959): Med. Proc., **5**, 337.

## DIE ORLI-SKOOL VIR KINDERS MET BREINBESERINGS

Verlede jaar[1] het ons die stigting verwelkom van die eerste skool in Suid-Afrika spesiaal aangepas by die behoeftes van kinders wat breinbeserings opgedoen het en ooraktief en maklik afleibaar is, en aan defekte waarneming en oordeel ly. Hulle is ook emosioneel versteur, maar hul EEG is normaal; hulle is nie spasties nie en hulle is vatbaar vir onderwys, d.w.s. hul IK is normaal sover dit vasgestel kan word.

1. Redaksioneel (1959): Mediese Bydraes, **5**, 337.

The school was known as the Orli School and was founded in Johannesburg in August 1959 for the education of these brain-injured children. The children admitted to the school have an Intelligence Quotient of 80 or more, and they have no physical affliction. They are admitted to a special school because they exhibit hyperkinesis and other behaviour problems as a result of their brain injury, and require special and virtually individual tuition. The school has received official recognition from the Transvaal Education Department.

The staff of the Orli School attend the Forest Town School for Cerebral Palsied Children for training, and they receive guidance from the Professional Steering Commitee which has representatives from other interested Organizations, e.g. The University Speech Clinic, the Johannesburg Child Guidance Clinic, the Forest Town School for Cerebral Palsied Children. The staff also work with the National Institute for Personnel Research.

It is gratifying to record the great progress which the Orli School has made. Children have been referred to the Orli School from official bodies, e.g. the Johannesburg Child Guidance Clinic. It is hoped that future referrals to the School will also come from practising psychiatrists, psychologists and paediatricians.

The School is situated in Beit Street, Doornfontein (corner of Staib Street) and the Superviser is there daily from 9 to 1.00 p.m. (*Telephone*: 24-7837).

Die skool, bekend as die Orli-skool, is in Augustus 1959 in Johannesburg gestig vir die opvoeding van hierdie kinders met breinbeserings. Die kinders wat tot die skool toegelaat word, het 'n intelligensiekwosiënt van 80 of meer, en hulle ly aan geen fisiese gebreke nie. Hulle word tot dié spesiale skool toegelaat omdat hulle hiperkinese en ander gedragsprobleme openbaar ten gevolge van hul brein beserings, en omdat hulle spesiale en feitlik individuele onderrig nodig het. Die skool word amptelik deur die Transvaalse Onderwysdepartement erken.

Die personeel van die Orli-skool het hul opleiding aan die Skool vir Serebraalverlamde Kinders in Forest Town ontvang, en hulle kry ook leiding van die Professionele Bestuurskomitee waarin daar verteenwoordigers van ander belanghebbende organisasies is, bv. die Spraakkliniek van die Universiteit, die Johannesburgse Kinderleidingskliniek, en die Skool vir Serebraalverlamde Kinders in Forest Town. Die personeel werk ook saam met die Nasionale Instituut vir Personeelnavorsing.

Dit is verblydend om gewag te maak van die wonderlike vooruitgang van die Orli-skool. Amptelike liggame, bv. die Johannesburgse Kinderleidingskliniek, verwys kinders na die Orli-skool. Daar word gehoop dat kinders ook in die toekoms deur praktiserende psigiaters, psigoloë en kinderspesialiteite na hierdie skool verwys sal word.

Die skool is geleë in Beitstraat, Doornfontein (op die hoek van Staibstraat), en die Opsigter is daagliks van 9 tot 1 nm. aldaar beskikbaar. (Telefoon 24-7837).

# A CASE OF COR PULMONALE WITH GROSS OEDEMA

## TREATED WITH SPIRONOLACTONE

F. T. SCHNEIER, M.B., B.CH.

*and*

G. J. NEWSTADT, M.B., B.CH.

*Johannesburg General Hospital and the University of the Witwatersrand, Johannesburg*

The steroidal spironolactones (a group of compounds synthesized by Kagawa *et. al.*)[1] are closely related in structure to aldosterone. The earlier compounds had to be given by frequent injection and this, together with their scarcity, precluded a full clinical trial, although there is evidence of their potential value in certain conditions.[2, 3]

The spironolactone used in this study (Aldactone; SC 9420, Searle) is absorbed readily by mouth. Studies in normal subjects[4] support the view that its effect on electrolyte excretion, like that of the other steroidal spironolactones,[3, 5] is due to its antagonizing the action of aldosterone on the renal tubules.

The following report demonstrates a case with intractable oedema, resistant to mercurials, trichlormethiazine and Diamox, which responded to a combination of trichlormethiazine with Aldactone.

### CASE REPORT

Mr. A. J. was admitted on 15 July complaining of severe dyspnoea and cough of 2 years' duration, which had become extreme for the

past 8 weeks. During this period he noticed increasing swelling of legs.

*On Examination.* He was a distressed adult male, sitting propped up in bed, grossly dyspnoeic, extremely cyanosed and plethoric. There was no evidence of clubbing of the fingers.

His blood pressure was 130/70 mm. Hg. The pulse rate was 134 per minute and respiration rate 32 per minute.

The raised venous pressure was indicated by fullness of the jugular veins 3 inches above the sternum with the patient lying at 45°.

His chest showed an increase in the anteroposterior diameter. Air entry was poor on both sides, especially the left; fine crepitations were present at both bases and sibilant rhonchi were audible in all lung fields.

Examination of his abdomen demonstrated a 4-finger hepatomegaly.

Gross oedema was present from the ankles to the knees.

### SPECIAL INVESTIGATIONS

*X-Ray (Chest)*: The lungs were emphysematous with increase in the lung markings, particularly at the bases. The heart: chest ratio was 50%, which is the upper limit of normal. There was some prominence of the hilar vascular shadows suggestive of early congestive changes.

*Blood Count*: Haemoglobin, 20.4 g. %; Haematocrit, 61%; MCHC, 34%.

Leucocytes: 8,800 per c.mm. with a normal distribution.

ESR (Wintrobe), 1 mm. per hour.

*Blood Electrolytes*: Urea: 43 mg. per 100 ml. 15–40 mg. per 100 ml.).

Potassium: 4.7 mEq. per litre (4–5.5 mEq. per. L.).

Sodium: 133 mEq. per litre (135–138 mEq. per L.).

Chlorides: 91 mEq. per litre (96–106 mEq. per L.).

Serum $CO_2$ content: 24.2 mEq. per litre (23–32 mEq. per L.).

Examination of sputa showed numerous polymorphonuclear leucocytes and yeast bodies.

Cultivation yielded an abundant growth of pneumococci (sensitive to penicillin) and also yeast-like bodies.

*M. tuberculosis* was not isolated.

The ECG showed gross enlargement of the right ventricle with rS pattern continuing over all precordial leads.

P pulmonale was demonstrated in standard leads 2 and 3 and there was T wave inversion in these leads.

The following regime of treatment was given to the patient on admission:

1. Aqueous penicillin 1 million units 6-hourly for 4 days followed by potassium penicillin V 500 mg. 4 times daily orally.
2. Streptomycin 1 g. daily for 7 days.
3. Digoxin 0.5 mg. 6-hourly for 5 doses and then 0.25 mg. *tds.*
4. Fluitran (trichlormethiazine) 4 mg. daily.
5. Potassium chloride gr. 15 *bd.*
6. Mersalyl 2 c.c. on alternate days.
7. A mixture containing Ammonium Chloride and Calcium Chloride (1.0 g. of each) was administered 3 times a day.

This regime, as well as 2 Diamox tablets given on the 14th day, was carried out for 15 days, during which time the patient's weight dropped from 152 lb. to 144 lb. His raised jugular venous pressure had returned to normal, but there was still gross oedema of the legs, with crepitations at the bases. Hepatomegaly was still present and dyspnoea continued to be a marked feature.

On the assumption that secondary aldosteronism was partially responsible for the fluid retention, spironolactone, 200 mg. *bd,* was commenced and the Potassium Chloride, Ammonium Chloride and Calcium Chloride were discontinued, but the rest of his treatment was continued as before.

Careful electrolyte studies showed that, in spite of Fluitran, the spironolactone caused a slight serum potassium elevation.

Clinically the patient responded rapidly to this regime, oedema disappeared within 15 days, the hepatomegaly regressed and the crepitations disappeared at the lung bases. During this time the patient's weight dropped from 144 lb. to 126 lb. and at this stage the patient was free of dyspnoea at rest.

### SUMMARY

A case of cor pulmonale with gross oedema, treated successfully with spironolactone, is presented.

Our thanks are due to Dr. M. M. Suzman for his guidance and to Dr. K. F. Mills for permission to submit this case for publication.

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# JAUNDICE IN THE NEWBORN

M. MEDALIE, M.R.C.P.E.
*Johannesburg*

Jaundice in the newborn is a symptom of great importance because prompt removal of excess bilirubin by replacement transfusions can not only prove lifesaving, but may also prevent kernicterus. This causes cerebral palsy, spasticity or mental retardation.

Since the mechanism of haemolytic disease has been fully understood, a great many causes of jaundice have been discovered and are still being reported.

A simple explanation of the physiology of bilirubin will greatly help to explain the underlying factors which play a part in the production of jaundice.

Fat-soluble (indirect reacting) must be converted into water-soluble (direct reacting) bilirubin before it can be excreted either in the bile or urine. This conversion depends on an enzyme which may or may not be specific for bilirubin, but is concerned with the glucuronic acid conjugation in general. This enzyme is low in the newborn, particularly in the premature. Therefore any factor which increases the load, such as increased blood break-down (all haemolytic causes) or interferes with the liver metabolism (such as diseases of the liver) or competes with the glucuronic acid (such as numerous drugs) or a congenital absence of the enzyme or deficiency, will all tend to increase the severity of jaundice.

The probable pathway as outlined by Billing and Lathe[1] appears to be as follows:

Uridine diphosphate glucuronic acid and bilirubin are acted upon by an enzyme, bilirubin glucuronyl transferase, with the production of bilirubin glucuronide and uridine diphosphate.

It is only the indirect form which is deposited in the cerebral nuclei to cause brain damage.

Jaundice appears at different times and the history of onset is undoubtedly the most important single factor in making a diagnosis. Laboratory investigations are of limited value, except that repeated checks on the blood levels of bilirubin are important in deciding when a replacement transfusion is desirable. In many instances it may need to be repeated. Recently a case was reported in a Maternity Hospital which required 5 replacement transfusions. The final outcome was excellent.

It has also been demonstrated that the smaller the infant, the lower the level of bilirubin necessitating a replacement transfusion. A 3 lb. infant should be replaced at 16 mg. per 100 ml., and a full-term infant at 20 mg. per 100 ml. This will greatly lower the chance of kernicterus developing. The various levels of bilirubin in different groups are seen in Table 1.[2]

Mollison and Cutbush[3] record the incidence of kernicterus at different levels (Table 2).

TABLE 2

| *Bilirubin Concentration* (*Mg. per* 100 *Ml.*) | *Kernicterus* % |
|---|---|
| 10–18 | 0 |
| 18–24 | 7 |
| 25–29 | 30 |
| 30–40 | 70 |

CLASSIFICATION OF JAUNDICE

1. *Excessive Blood Destruction*:
   (*a*) Haemolytic Disease of the Newborn:
      1. Rh incompatibility.
      2. ABO incompatibility.
      3. Rare group incompatibility.
   (*b*) Congenital Spherocytosis.
   (*c*) Septicaemia.
   (*d*) Massive Haemorrhage with Haemolysis.
   (*e*) Physiological.
2. *Liver Damage*:
   (*a*) Infections:
      1. Serum hepatitis.
      2. Infectious hepatitis.
      3. Herpetic simplex hepatitis.
      4. Cytomegalic inclusion disease.
      5. Toxoplasmosis.
      6. Syphilis.

TABLE I: AVERAGE BILIRUBIN LEVELS IN MG. PER 100 ML. (GELLIS AND HSIA)

| | *Average Bilirubin Levels* (*In Mg. per* 100 *Ml.*) | | | | | |
|---|---|---|---|---|---|---|
| | *Cord Blood* | *1st Day* | *2nd Day* | *3rd Day* | *4th Day* | *5th Day* |
| 24 normal full-term infants .. .. | 2.1 | 5.7 | 6.8 | 6.1 | 4.7 | 4.2 |
| 15 normal premature infants .. | 1.3 | 5.4 | 8.1 | 10.7 | 11.2 | 11.2 |
| 12 infants with Rh incompatibility | 5.0 | 16.5 | 15.5 | 10.9 | 7.9 | |
| 21 infants with ABO incompatability | 2.9 | 13.4 | 16.0 | 12.9 | 11.9 | |

3. *Obstructive*:
   (*a*) Congenital absence of bile ducts.
   (*b*) Choledochal cyst.
   (*c*) Inspissation bile syndrome (multiple causes).
4. *Enzyme Disturbances*:
   (*a*) Galactosaemia.
   (*b*) Congenital familial non-haemolytic jaundice (Crigler-Najjar syndrome[4]).
   (*c*) Constitutional hepatic dysfunction.
   (*d*) Prematurity—temporary diminished enzyme formation.
   (*e*) Drug administration particularly in prematures:
      1. Vitamin K.
      2. Gantrisan.
      3. Chloramphenicol.

In the newborn so-called physiological jaundice occurs on the 2nd or 3rd day of life and is apparently due to excess red blood cell break-down and also temporary lack of bilirubin transferase. It is worse in prematures. Should it not subside in a few days, it may extend beyond physiological levels and result in hyperbilirubinaemia. In the full-term infant, the incidence of excess bilirubin without blood incompatibility is very low, but in prematures the incidence may be up to 45%.

In prematures drug-induced hyperbilirubinaemia is of great importance and is worthy of special note. It has been found in a few series that administration of vitamin K to mothers during labour[5] or 10–30 mg. to the premature infant results in a high level of bilirubin.[6] This has also been found after the administration of sulphsoxazol (Gantrisan)[7] and recently reported after the administration of chloramphenicol. In a large series of prematures it was found that the administration of chloramphenicol[8] in a series of 4 lb. prematures increased the incidence of jaundice from 0% to 45%. In all these drugs it is tentatively suggested that they interfere with glucuronic enzyme metabolism and compete with bilirubin for its conjugation.

If the bilirubin level is unduly high, it may cause blockage of the bile ducts. In intrinsic diseases of the liver, e.g. hepatitis, the swollen liver cells cause intrinsic pressure on the bile ducts. In both instances, however, the so-called bile inspissation syndrome results. This can be diagnosed by persistence or even increased intensity of the jaundice, associated with pale stools. If hepatitis is responsible, the administration of cortisone will relieve the jaundice in a few days. If the bile ducts are blocked or congenitally obstructed cortisone will result in no improvement.

The most important cause of jaundice which occurs immediately after birth or within the first 24 hours, is the so-called haemolytic disease of the newborn due to Rh incompatibility. In modern practice it is usually detected early as all pregnant women should be tested for Rh incompatibility. If they are Rh negative, their blood is constantly checked later in pregnancy for antibodies and if a high level occurs then immediately at birth a replacement is given to the infant. This should always be done in any case where there is a previous history of haemolytic disease or if the infant is more than 2 weeks premature. In borderline cases, if the cord blood is tested and the haemoglobin is below 14 g. or contains more than 3.5 mg. of bilirubin, a replacement should be performed. After the replacement a bilirubin level should be repeated after 12 and 24 hours. If the level rises above 20 mg. (and less in a premature) repeated transfusions may be advisable.

Closely allied to haemolytic disease is the so-called A and B incompatibility. This is equally as common as Rh incompatibility, but fortunately jaundice is very mild and needs no treatment. If jaundice is severe a replacement may be necessary. In a very rare case the cause may be hereditary spherocytosis and in this instance diagnosis may be difficult.

Another condition which may occur early in the neonatal period is the so-called cytomegalic inclusion disease. This is due to a virus which may affect all tissues of the body and is characterized by intranuclear and cytoplasmic inclusion bodies in all the viscera. It is often associated with cerebral damage and calcification may be found on X-ray later in life. A diagnosis is made by special virus studies on the urine. Unfortunately the virus may occur incidentally in 10–30% of cases dying of other diseases.

This condition must be differentiated from toxoplasmosis, in which the findings are very similar and may show all or several of the following manifestations:

Fever, maculopapular rash, icterus, lymphadenopathy, hepato-splenomegaly, hydrocephalus, microcephaly and cerebral calcification.

It is usually congenital and due to the parasite *Toxoplasma gondii*. The outcome is usually fatal or may result in permanent and severe brain damage.

If jaundice occurs after one week it may be due to congenital absence of bile ducts or a choledochal cyst. In such cases the stools are free of bile and the liver tests are normal. It is difficult to distinguish from the bile inspissation syndrome, which may be due to numerous causes as previously outlined. However, two other conditions which must be

distinguished are neonatal hepatitis (usually serum hepatitis) and hepatitis due to Herpes simplex.

Another condition which may occur at this period is the so-called congenital familial non-haemolytic jaundice (Crigler-Najjar disease). This is a severe jaundice attributed to congenital absence of bilirubin transferase and results in severe jaundice associated with severe encephalopathy and extrapyramidal lesions. The prognosis is very poor indeed. In milder forms this condition is known as constitutional hepatic dysfunction and was first described by Gilbert in 1901. In this condition the jaundice fluctuates but rarely exceeds 6 mg. per 100 ml. It has a benign course.

In certain infants there is a disturbance of galactose metabolism due to absence of the enzyme which converts galactose to glucose. This condition is characterized by failure to thrive, hepato-splenomegaly, jaundice, mental retardation and cataract formation.

Galactose is present in milk, particularly breast milk, and its exclusion from the diet for 3 years will prevent the occurrence of cataract, brain damage and the possibility of cirrhosis of the liver.

## CASE 1

An infant of 4 weeks was seen with a history of jaundice since birth. This was later associated with pale stools, and a few days before admission to hospital bruises developed. On attempting to obtain blood, the bleeding could not be stopped. The following day there was marked evidence of brain involvement, characterized by spasticity, pulling the head back, full fontanelle and a squint. The mother was Rh positive. At 5 weeks of age, on 8 January 1960, the infant was transferred to another hospital for further investigations.

### LABORATORY INVESTIGATIONS

| | |
|---|---|
| 8 January 1960: | Hb, 11.89 g. %; W.B.C., 17,200 per c.mm.<br>Prothrombin Index, 100%.<br>Blood Urea, 57 mg. per 100 ml.<br>Sodium, 139 mEq./L.; K, 5.9 mEq./L.; Cl, 104 mEq./L.<br>$CO_2$ combining power, 18.1 mEq./L.<br>Bilirubin, 7.8 mg. per 100 ml. |
| 13 January 1960: | Hb, 14.89 g. %. |
| 15 January 1960: | Bilirubin, 9.6 mg. per 100 ml. Direct 5 mg. per 100 ml. Indirect 4.6 mg. per 100 ml. |
| 16 January 1960: | Thymol Turbidity, 1.<br>Thymol Flocculation, negative.<br>Cephalin cholesterol, negative.<br>Zinc sulphate turbidity, 3.4 units.<br>Total Lipids, 12.48 mg. per 100 ml.<br>Alkaline Phosphatase, 25.3 KA units.<br>Total Proteins, 5.09 g. %; Albumin, 3.2; Globulin, 1.89. |
| 9 February 1960: | Skull X-ray showed marked widening of the sutures. |
| 10 February 1960: | Blood group A, Rh positive. No abnormal antibodies. Direct Coombs', negative. |
| 12 February 1960: | Urine showed no reducing substances or phenylpyruvic acid.<br>Toxoplasma gondii, Sabin-Feldman dye test negative. Ide test negative. Kolmer cardiolipin test, negative. |
| 16 February 1960: | Chromatographic analysis of the urine showed no abnormal amino acids. |

*Progress.* The general spasticity of the child slowly improved and she began eating better. She was eventually discharged on 11 April, but appeared somewhat retarded.

*Opinion.* When she was first seen, the following diagnosis was presumed. The infant had developed a bile inspissation syndrome from an apparent physiological jaundice. This resulted in defective formation of vitamin K with resulting haemorrhage, including cerebral and subdural haemorrhages which caused symptoms closely resembling kernicterus. The subdural haemorrhages responded to frequent tapping, and the infant apparently made a good recovery, except for a question of some mental retardation. All other causes of jaundice were excluded by the numerous tests performed.

The progress in this case was most unusual and worthy of special comment, as kernicterus was so closely simulated.

## CASE 2

A first-born infant from an Rh positive mother developed jaundice at 18 hours of age. At the time it was seen by the author and found to be acutely ill and toxic. The abdomen was distended and the infant had not passed meconium. A barium enema produced a few dry white curds which looked like mucosal lining. The bilirubin was only 8 mg. per 100 ml. An upright X-ray of the abdomen

showed a fluid level. At 24 hours the infant was operated on by Mr. Lannon.

At operation atresia of the bowel was found in two places. This was associated with a one foot long piece of dilated gangrenous bowel filled with blood.

In this case jaundice was apparently due to one of two possible causes. The first was absorption of the blood products, and the second was the possibility of toxic products resulting in hepatic damage, although it was rather early for such a possibility.

These two cases are briefly presented to show that the causes of jaundice and its complications have not yet been fully documented and atypical cases of jaundice should be fully investigated.

## SUMMARY AND CONCLUSIONS

The mechanism of conversion of indirect to direct bilirubin is outlined.

The various causes of jaundice in the neonatal period are classified and the differential features presented.

Stress is placed on the essential clinical nature of the diagnosis and the use of the laboratory is mainly confirmatory. It is, however, essential to follow the bilirubin level at frequent intervals.

A replacement transfusion may prevent permanent brain damage or be lifesaving.

Two cases with unusual features are briefly reported. It is stressed that with time new syndromes will undoubtedly be discovered.

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# TEACHING SOCIAL AND PREVENTIVE MEDICINE*

## EXPERIENCES AT THE UNIVERSITY OF NATAL

J. H. ABRAMSON, B.Sc., M.B., B.Ch. (RAND)

*Sub-Department of Social, Preventive and Family Medicine, University of Natal, Durban*

There is an increasing awareness, in both the medical and lay worlds, that

> 'the goal of health . . . calls for not only the cure or alleviation of disease. It calls for even more than the prevention of disease. Rather, it looks beyond, to strive for maximum physical, mental and social efficiency for the individual, for his family and for the community.'[1]

This awareness finds reflection in the South African Medical and Dental Council's regulations for the minimum medical curriculum, which require that the student

> 'be taught that the maintenance and promotion of health both of the individual and of the community is as important as the knowledge and care of disease.'[2]

In every continent, medical schools are experimenting in the undergraduate teaching of social and preventive medicine.

There are unfortunately no generally agreed definitions of 'social' or 'preventive' medicine. For the present purpose, these terms can best be explained by stating some of the teaching aims of the course in Social, Preventive and Family Medicine at the University of Natal. Since its commencement in 1955, this course has aimed at equipping the student to do the following:

(*a*) *In relation to his individual patient*:

To make a comprehensive diagnosis of his patient's state of health, including an appraisal of the adequacy with which he functions in society;

To realize how the patient's health and medical care are influenced by the way he lives and the persons among whom he lives; and

To appreciate the patient's influence on the health of his family and other persons with whom he functions.

(*b*) *In relation to the family under his care*:

To understand the processes affecting the family's health.

(*c*) *In relation to the neighbourhood in which he practises*:

To understand the processes affecting the neighbourhood's health.

(*d*) *When applying these considerations in the actual care of the patients*, families or neighbourhood community under his care, to adopt an anticipatory approach, and take preventive and promotive measures directed at improving his patients' future health.

* Presented at a conference on medical education organized by the Natal Medical Graduates' Association in Durban in June 1960.

The aim has not been to produce specialists in public health. Few students want such careers. This applies both to students in the U.S.A.[3] and to students at the University of Natal where, of 42 clinical students recently questioned, only 2 stated a wish for a public health career—one as a first choice, and one as a second. Rather, the main objective has been so to equip students that, in their day-to-day doctoring, they will be able to adopt a social and preventive orientation.

To equip students for such an approach in their clinical practice, their training in social and preventive medicine must be primarily clinical; i.e. practical rather than solely theoretical. In John Gordon's words: 'The teacher of epidemiology should always talk with a stethoscope round his neck.' Clinical training of this sort is given at a growing number of medical schools throughout the world.[1, 4-7] Courses are given under different names, and vary in their content. Some are elective and some compulsory. They range in length from a fortnight or a month, to 2 or more years.

At this school, the course in Social, Preventive and Family Medicine is compulsory, extending over the last 3 years of study. The course, which has been described in detail by Kark,[8] the first head of the teaching unit, is predominantly practical. Most of the teaching is done around patients and families. The student learns about the importance of sanitation, e.g. not merely in lectures, but by actually examining the patient's home and neighbourhood, and relating his findings to the illnesses he diagnoses. He is not merely given descriptions of how a mother's health may affect her child's, but handles families in which he himself can find evidence of such effects. He is not merely told that preventing disease and promoting health are 'important'; he participates personally in the preventive and promotive care of specific patients and families, and has personal contact with active community health programmes. Often, too, he has the opportunity of himself seeing whether these measures have been effective.

There is no general agreement on the need for an independent unit for such teaching. It is often claimed that the teaching of social and preventive medicine should be the concern of many departments, and cannot be the exclusive concern of any single department. While this is certainly true, there is an increasing emphasis on the value of a specific department whose main concern is this teaching.

A committee of the Royal College of Physicians of London recommended in 1943 that every medical school should establish a Department of Social and Preventive Medicine.[9] A conference on the teaching of preventive medicine, held at Colorado Springs in 1952, stressed the advantages of having a department exclusively focused on the preventive aspects of medicine.[1] At the First World Conference on Medical Education in 1953, the speakers in the Section on Preventive and Social Medicine

> 'were unanimous in thinking that special departments are required for the study, practice and teaching of these aspects of medicine:
>
> (1) Because of the increasing amount of detailed knowledge and technique that is now accumulating on all these subjects—knowledge of which the teacher must fully comprehend if he is to give balanced and accurate and relevant instruction;
>
> (2) Because special facilities are required for teaching social and environmental influences on health outside the hospital; and
>
> (3) Because of the opportunities for field research into many of the aetiological factors of disease which still remain obscure. Such research can only be effectively pursued by those who are trained in special departments to use the research methods appropriate to large human populations.'[10]

In a recent review for WHO of the teaching of this subject in Europe, Grundy and Mackintosh, having described the content of a comprehensive course, note that

> 'anyone familiar with the medical curriculum and the character of present-day medicine could hardly resist two conclusions: first, that there are few if any of the subjects which could be omitted without leaving serious educational gaps; and second, that as things are, if the student did not receive instruction in a Department of Social Medicine, he would usually not receive it at all.'[5]

Thanks to the help of the Rockefeller Foundation, this School has, since 1955, had a separate unit for teaching this subject. This unit, initially an independent department, is at present a separate Sub-department within the Department of Medicine, with a similar status to that of the Paediatrics Unit.

Apart from a discrete teaching unit with a defined teaching programme, an important requisite is a community base. Students should be able to get out of the artificial hospital situation, into the community. At the Colorado Springs conference

> 'it was generally agreed that it was hard, if not impossible, for a student to appreciate the social and environmental aspects of medical care when his learning experiences are confined within the walls of the medical school and hospital.'[11]

Few people spend much of their lives in hospitals, and most illnesses are treated at home. In the words of the late René Sand, 'the place of medicine is in the stream of life—not on its banks.'[7]

Various medical schools have found different ways of meeting this need, by teaching in the context of, e.g. home-care programmes centred on hospitals, or general practices, or neighbourhood health services such as clinics or health centres.[1, 4-7] This School has been fortunate in being able to use the Institute of Family and Community Health of the Natal Provincial Administration. This Institute provides an integrated curative, preventive and promotive health service to 2 Durban neighbourhoods.[12] Students spend one morning at the Institute in each week of the last 3 years of their course, and are in attendance also for a block period of 2 weeks in their final year. During this time they handle patients (well and ill) who are living at home, they clerk families and they take part in neighbourhood programmes for the care of expectant mothers and other groups. Guided by family physicians, they have considerable contact with other community health workers, such as family nurses and community health educators, and learn how the family doctor's work can be furthered by cooperating with social workers, voluntary welfare bodies and other community agencies.

How effectively have students in fact learned a social and preventive orientation? The proof of a pudding is in the eating; but, unfortunately, no measure is available of the extent to which students have put their teaching into practice after graduation. In evaluating the course, we have had to be content with less useful measures. First, examination results, which provide at least some measure of knowledge and skill. An examination in Social, Preventive and Family Medicine forms part of the final qualifying examination. This examination is predominantly clinical. Of the 52 students who have written it to date, 45 (87%) passed at their

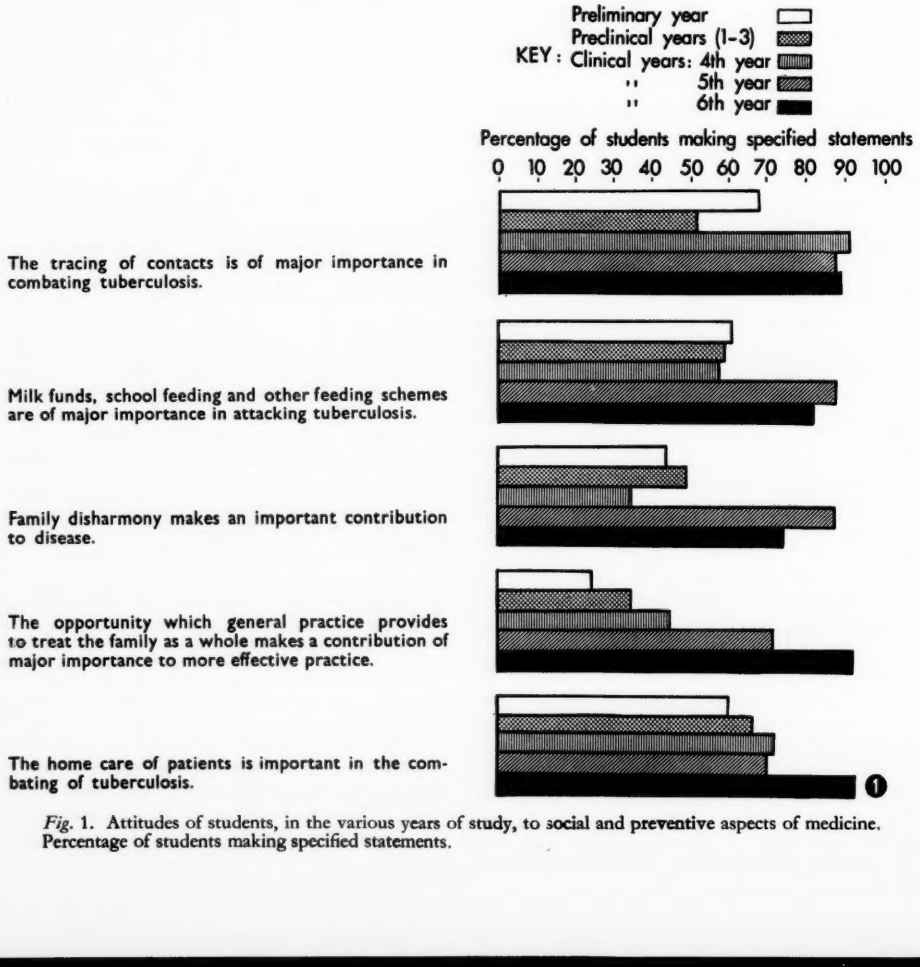


*Fig.* 1. Attitudes of students, in the various years of study, to social and preventive aspects of medicine. Percentage of students making specified statements.

first writing, and 20 (38%) did so with distinction (i.e. with first or second class passes). The first figure is similar to those for the other subjects in the final examination, the second is somewhat higher. While examination results may mean little, they indicate this at least, that in the view of internal and external examiners, there have been few students who have not attained a sufficient competence in this field, and many who have reached a high standard.

No less important than students' knowledge and skills, and possibly more so, are their attitudes, which must considerably influence their subsequent practice. Students' attitudes to the course itself have varied considerably, ranging from appreciation to outspoken dislike. The latter has often been based on the feeling that the course is an 'extra', a burden not generally regarded as an essential part of a medical course, and one not imposed on students at other Medical Schools. A number of students have, however, appeared to move, during their course, towards a greater appreciation of it. Our impression, which may of course be wrong, has been that the students' response has on the whole been favourable.

More important than students' attitudes to the course, are their attitudes to the subject. In an effort to measure these attitudes, a questionnaire was distributed to students towards the end of 1959. Students in all the years of study were asked their views about the importance of various factors in the production of disease, the role of the medical profession, the importance of various tuberculosis control measures, and other topics. Forms were filled in, voluntarily and anonymously, by 71% of the students. The responses of students in their preliminary year, those in the pre-clinical (1st to 3rd) years, and those in each of the 3 clinical years (4th, 5th and 6th) were analysed separately. (At this Medical School, the course is spread over 7 years:

A 'preliminary' year, in which the subjects taught are history, English or Afrikaans, botany, zoology, physics and chemistry;

Three 'pre-clinical years' during which the subjects covered are botany, zoology, chemistry, physics, sociology, anatomy, physiology, psychology, pathology and pharmacological physiology; and

Three 'clinical' years).

The students' responses, which have been described more fully elsewhere,[13] revealed 3 interesting findings.

1. It was found that students in their 'preliminary' year had a considerable awareness of the importance of many social and preventive aspects of medicine. Over 90% of the respondents regarded poverty, a poor diet, insanitary conditions and poor housing as being important factors in the production of disease. Over 80% thought that the medical profession should play an important role in combating malnutrition, in improving housing standards, in public health education, and in marriage guidance. It was considered that these findings, which applied also to students in the pre-clinical and clinical years, were probably manifestations of two factors: the popular awareness, often expressed in the lay press, of the importance of such factors as diet in producing ill-health; and the particular awareness of the students, all of whom are African, Indian or Coloured, of the problems of underprivileged groups.

2. It was found that the responses of students in the pre-clinical years differed very little, in any respects, from those in the preliminary year. The significance of this finding will be discussed below.

3. In a number of respects the students in the clinical years placed considerably greater weight on social and preventive aspects than did those in the preliminary or pre-clinical years. Moreover, in many respects there were differences among the 3 clinical years, students nearing the end of the course laying greater stress on social and preventive aspects. Many of the differences attained statistical significance. Typical responses showing these trends are shown diagrammatically in Fig. 1, which is self-explanatory. In some instances the difference was apparent from the 4th year, in some from the 5th, and in some it appeared only in the final year. The replies to a series of questions concerning patient management indicated that final year students were more aware than 4th and 5th year students of the importance of the patient-doctor relationship and of patient education.

These findings indicated that with increasing clinical experience, students tended to lay more stress on social and preventive aspects. It was, of course, not possible to determine the extent to which this change resulted from their specific teaching in Social, Preventive and Family Medicine, or from their teaching in other subjects, or simply from the fact that they were repeatedly confronted in the wards with cases of pellagra, gastro-enteritis, tuberculosis and other preventable diseases with obvious social and cultural determinants and important social implications.

Gratifying though these findings were, there were certain disquieting features. Only 29% of the clinical students considered, e.g. that the general practitioner's opportunity to treat patients at home made a major contribution

to effective practice. While this figure was significantly higher than the corresponding figures for preliminary-year and pre-clinical students, it was, in view of the emphasis placed in this course on the advantages often presented by domiciliary care, regrettably low.

It is possible that a finding of this sort is in part a result of differences in the teaching in different departments. Interdepartmental differences in the emphasis laid on social factors in medical care may markedly affect students' attitudes. A student who finds that a patient's relationship with his family is regarded as important in one department, but is waved aside as an irrelevancy in another, may be left in some doubt about the practical importance of such a factor. Difficulties of this sort have been voiced by many of our students. Such inter-departmental differences, while they certainly exist, have not been studied at this school. At a U.S.A. school, considerable interdepartmental variation was found, particularly among junior members of the teaching staff.[14] Great importance was ascribed to social and psychological factors in patient care by 100% of the junior members of the teaching staff in the Psychiatry Department, by 91% in the Medicine Department, and by 84% in the Pediatrics Department, but by only 55% in the Department of Obstetrics and Gynecology, and 42% in the Surgery Department. Among senior teachers (full and associate professors) there was little such variation, the figure being over 75% in each department. Unfortunately students tend, by and large, to have more, and closer, contact with junior than with senior staff members.

A further disquieting finding was the absence of any apparent change in students' attitudes during their first 4 years of study. During these early years, students at this School take courses in psychology[15] and sociology. There is no doubt that these courses, which give students a considerable understanding of how people behave, how they interact with one another, and how they are shaped by their habitat and culture, comprise a valuable preparation for their subsequent course in Social, Preventive and Family Medicine. However, something appears to be lacking. It is possible that a greater emphasis, during such courses as those in anatomy, physiology and pathology, on the role of social factors would help to supply this deficiency. Possibly greater stress could be placed on the relevance of social factors to growth and development, bodily functioning, and the development of pathological conditions. The pathology course, e.g. offers considerable scope for teaching of this sort. At each autopsy at Washington University, in St. Louis, a student presents the social case history of the subject.[7] The correlation of such material with the autopsy findings must stimulate an interest in social medicine. Where personal histories of this sort are not available, a more general discussion along the same lines can serve a similar purpose. If, at each autopsy, the question is asked, 'Was this death avoidable; and if so, how?', this must help to give the students a preventive orientation.

Despite these shortcomings, it does not appear that this school's experiment in teaching Social and Preventive Medicine has been unsuccessful. Partly because of the students' receptiveness, and partly because of the nature of their training, there appears to have been some progress towards turning out doctors who see their patients as living persons within a living context, and whose view of their own role goes beyond the treatment of disease. Only such doctors are likely to give the public the kind of comprehensive health care which modern medical science makes possible, and only such doctors are likely to lead the public to expect and demand the standard of care of which our profession is capable.

I am indebted to Mrs. K. M. Wolfson, who drew the chart.

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# MEDICO-SCIENTIFIC APPRECIATION AND UNDERSTANDING OF ART

AYRES L. RIBEIRO, M.A. (CANTAB.), L.R.C.P. (LOND.), M.R.C.S. (ENG.)*
*Nairobi, Kenya*

For aesthetic appreciation and understanding of art, whether literary, visual or auditory, it is necessary, at the outset, to have a certain gift which is sensitive to what is original and creative. It is doubtful whether one can acquire this faculty if one is not gifted with it.

In contrast to this, it is not difficult to understand art scientifically, because to achieve any accomplishment and perfection, art is very dependent on science for the scientific technical aid of physics, chemistry, metallurgy and other allied sciences in the realm of music, sculpture, painting, architecture and other decorative arts.

This paper deals with the medical aspects only.

Much can be written of disease as an inspiration and a creative force in art. It is well known that the tuberculosis toxin is a very potent stimulant of the mind. Chopin, Keats and Mozart were inspired by the motive force of this toxin. Certain cancers can produce a tremendous energy, thus allowing a producer to put almost superhuman work into a theatrical production as a work of art. An example of this is cancer of the pancreas, which produces tremendous energy in the patient until the cancer advances enough to produce emaciation, weakness, lethargy and death.

Lysergic acid produces a split mind. Experiments show that design and accuracy are lost, as greater doses are taken. This may have something to do with diseases of the mind. Medical science (with advanced research and understanding of psychology) has taught us many things, amongst them that derangement of the mind can be a great source of inspiration to an artist.

Van Gogh is a classical example of this. The whole of his creative artistic life, in other words, all his paintings, can be summed up as the art and manifestation of a progressive madness, from the first to the last of his paintings as his mind became more diseased. He suffered from episodic psychosis or a twilight state. For inspiration, like many other artists, he had to go to a new country—the region round Arles, in the South of France. Here the sunbathed, flowered landscape, with its blue, azure skies provided the medium and the inspiration, which was enhanced by the works of the Japanese artists, and was projected into inspired creative ecstasy by his mental disorder.

In his particular type of illness the depression, after an attack, passes away and leaves a very clear, vital and vivid mind, which is able to focus with great intensity and clarity on the single factor, such as colour or sound, on which the artist is working at that particular moment; hence the vividness of his colours. The gloom of his painting, in the picture *Crows Flying in a Field*, was because this picture was painted during intense depression, just before he shot himself. Had he come out of this state of depression his next few works might have made greater history for vividness, brilliancy and intensity of colour.

In the case of the musical composer, Tschaikovsky, this same disease of the mind was responsible for the intensity of sound and elation of composition such as in *The Waltz of the Flowers* and the intense gloom and depression of the *Sixth Symphony*. After composing this work he committed suicide.

Again, the German poet, Nietzsche, was inspired to write his works under the influence of mental disorder and, like the inspired ballet dancer, Massine, spent his life in a lunatic asylum.

The visions of Blake were seen during periods of madness and were later vividly portrayed by this artist in his works.

Sometimes. to understand art, one must understand the artist. The painting in the author's collection by S. P. Verelst (1644–1710), was done when this painter of the Flemish School, who was painter to King Charles II, had come out of Bedlam Lunatic Asylum. He was known as *The King of Flowers*. The brilliance and vividness of colour and composition shows the truth, that madness is the inspiration which focuses the particular theme on which the artist is working, to intensity and perfection when he returns to sanity.

Drugs and drink addiction have been the source of inspiration to many an artist. The painter, Utrillo, loved, was inspired and eventually killed by the demon drink.

* Kenya Police Surgeon and President Nairobi Scientific and Philosophical Society, Nairobi, Kenya.

Lord Byron wrote his poetry under the influence of hock and soda and Dylan Thomas under stronger liquor. Aldous Huxley wrote his *Doors of Perception* under the influence or after the influence of the drug Mescaline, which intensifies perception of colour and probably sound, causing illusions and hallucinations. I have known some writers write under the influence of hashish, cocaine and opium who have claimed their intensity of vision and perception as due to these drugs. As for coffee, it is well known that Balzac drank it all night while he was writing.

Inspiration and creative factors are damped during madness. This is not so during intoxication by drugs. The brilliancy and intensity of vision, perception and interpretation, is the same in both states when the cloudiness and the intoxication have cleared up, i.e. in madness and in intoxication.

I wish also to mention two extra-rational subjects, love and religious ecstasy. Aldous Huxley said that biological love is governed by a cycle of secretions from the endocrine glands. If it deals with cycles and factors connected with reproductive cycles then, biologically, this is correct as observed in reproductive cycles in man and animals.

Freud said that religious ecstasy was an intense neurosis and a manifestation of adolescence in personality. This may be correct, by the irrational behaviour seen during the religious wars and the Inquisition. It helps one to understand the breathless adoration and intensity of the religious paintings of the Middle Ages and Gothic architectural marvels of great beauty.

From an aesthetic point of view, if beauty is in the eye of the beholder, then rational appreciation of art is in the hands of the scientist; and it is just as well it is so, for life without art is like a garden without flowers.

## NOTES AND NEWS : BERIGTE

Dr. A. G. Oettle, Head of the Cancer Unit of the National Cancer Association at the South African Institute for Medical Research, read a paper on *Carcinoma of the Cervix Uteri in South Africa* at the Symposium on Geographic Pathology in Tokyo in October 1960.

Dr. Oettle upon his return journey, visited several research centres in the Far East at which interesting work on the demography of cancer is being carried out.

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### ABSTRACTS OF JAPANESE MEDICINE

Japanese medical scientists have become prominent contributors to the world's progress in medicine, both in the clinical and, particularly, in the theoretical fields. The results of their work are reflected in some 500 current Japanese medical periodicals, which, in view of the language barrier, are not accessible to Western readers.

As a solution to this problem, the non-profit Excerpta Medica Foundation, aided by a grant from the U.S. Department of Health, Education and Welfare, is happy to announce its new monthly publication "Abstracts of Japanese Medicine", in which the reader—be he researcher or clinician—will find, in the English language, an authoritative, overall picture of Japanese progress in medicine in all its aspects.

Under the careful supervision of a Japanese Editorial Board, headed by Professor T. Yoshida, Dean of the University of Tokyo, the abstracts are selected from the weekly issues of the Igaku Chuo Zasshi (Japanese Medical Abstracts). The abstracts and translations are prepared by medical specialists, and final editing and supervision is undertaken by the Japanese Editorial Board in cooperation with Excerpta Medica's own specialist staff of editors.

It is hoped that this new long-expected service of Excerpta Medica will be of great value to those wishing to follow progress in the various branches of Japanese medicine.

The annual subscription rate amounts to US $30.00, or the equivalent in local currency. The same rate applies to Volume I, which comprises the period October 1960 to December 1961.

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### DISCIPLINED DRUG DELIVERY

A paper on the development and technology of sustained-release drug products was presented on 19 November at the Fifth Pan-American Congress of Pharmacy and Biochemistry in Santiago, Chile, by Frederick J. Kirchmeyer, Director of New Products at Abbott Laboratories, in collaboration with Clarence J. Endicott, group leader in pharmaceutical research, and Dr. Herbert M. Gross, head of pharmaceutical research.

Entitled *Disciplined Drug Delivery,* the paper explored the applications of the prolonged action principle in modern drugs, pointing out that they are now used by at least 25 pharmaceutical manufacturers in the United States and apply to more than 100 individual products.

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### UROLOGICAL CONGRESS

A Urological Congress will be held in Johannesburg, from 27 February to 3 March 1961.

Several overseas urologists, including Professor Pyrah (from Leeds), Mr. Ellison Nash (from London), Professor Cibert (from Lyon) and Professor de la Pena (from Madrid) have indicated that they will be attending.

An invitation is extended to all wishing to attend.

## IN MEMORIAM: DR. A. C. WATT

Professor Norman Dott, Edinburgh, writes:

The tragic and untimely death of Dr. Andrew Campbell Watt of Johannesburg focusses attention on Britain's wartime debt to those young doctors of the Commonwealth who threw all they had into service with her medical profession during the stress of War. His father had received his medical education in Edinburgh and had become an important figure in medical circles in Johannesburg. He had sent his son back to the 'old school' where he graduated in 1938. After posts in psychiatry and casualty, the outbreak of War in September 1939 found Andrew Watt house surgeon in the Department of Surgical Neurology of the Royal Infirmary, Edinburgh. A few months later the Department was moved, for strategic reasons, to Bangour Hospital near Edinburgh, and Watt moved with it—indeed one might more properly say he moved it! In those days all available young British doctors were being rapidly recruited for active military service. Dr. Watt dealt with a most formidable task as resident surgeon in the Edinburgh Brain Injuries Unit established at Bangour. He carried a load—about 900 admissions of major neurological injuries and diseases annually and 350 major neurosurgical operations—as single-handed resident surgeon, that would have required at least four residents in peace-time. He displayed extraordinary stamina, energy and capacity in organizing the emergency unit—about half civilian and half armed forces cases. His loyalty to his patients, his colleagues and to the high standards of practice he had acquired was magnificent. During the war we were able not only to maintain standards but to improve on them—developing cerebral angiography, treatment of aneurysms, epilepsy, etc. and greatly improving the management of head injuries and rehabilitation measures. That surgical neurology in Edinburgh came out of the War with a larger potential for good and with improved standards of practice was due to Watt's magnificent work during those most difficult years 1940–43. I estimate that he averaged an 18-hours working day—and night—in that period.

Having achieved this, and the Unit having become stabilized under War conditions, Andrew Watt felt the call to personal military service at the active fronts, and also to marry. He joined the R.A.M.C. and with his special experience he was posted to the principal Neurological Military Hospital in England, near Oxford. There he served with the principal Neurologists and Neurosurgeons—Brigadier Generals Hugh Cairns and George Riddoch, and Air Vice-Marshall Charles Symonds. He was posted as neurologist with a mobile team with the Normandy invasion forces and acquired fame for his extraordinary capacity for sustained effort at high standards. He could do three men's work and do it better than three men! After the Armistice he was stationed in Belgium for a considerable period and came under the influence and gained the friendship of Ludo van Bogaert, the great neurological figure at Antwerp. He stayed with us for two years after the Armistice —helping to clear up the neurological aftermath of War and finding time and academic capacity to pass the M.R.C.P.E. examination in 1946.

His subsequent career as Neurologist in Johannesburg again required much of his enthusiasm and pioneering spirit as Surgical Neurology was developing there and required his strong support, which he freely gave. He had attained a position of great influence, importance and respect and at the age of 46 his potential for good was enormous. At this point, and in the course of responding to an emergency call, comes his untimely end. The loss of this able and experienced specialist is a grievous one to his colleagues and his profession. The loss to those many of us in Britain who were deeply in his debt, who knew his strong friendship, his quiet humour, his grasp of medical and human affairs, his high ethical standards and his selfless devotion to his patients, is truly tragic. Our deepest sympathy goes out to Mrs. Watt and to his young daughter and son. We are grateful for the memory of such a loyal comrade, and we are devastated by his untimely death.

[An earlier obituary notice appeared in our issue of 31 December 1960, at p. 625.—*Editor.*]

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## A SERIES OF SK&F MEDICAL FILMS

(*Concluded from Vol. 6, No. 26, p. 629*)

The following films are available on request from SK&F Laboratories, P.O. Box 38, Isando, Transvaal.

All the films listed are 16 mm. sound films, and are available on loan without charge. Some are intended for showing to professional audiences; others are of more general interest and are intended primarily for lay audiences. It is our hope that these films will make a useful contribution to medical education.

Bookings may be arranged through local SK&F representatives or by writing to the above address. Whenever possible, 4 weeks prior notice should be given and an alternate showing date of at least one month after the preferred date.

Films marked * are intended for professional audiences only.

### * The Neurologic Actions of Phenothiazine Compounds

*Colour, 30 minutes.*

When and how the phenothiazine compounds act has been the subject of continuing research in laboratories and in clinics. This film was designed specifically as a discussion tool, as a stimulus to further speculation about the neurologic actions of the phenothiazine compounds. Although the theories and suggestions which are the subject of this film are well grounded in evidence they are still hypothetical. They are chosen from among the many concepts put forward by research workers in the field.

The film outlines the anatomy and functional relationships of the principal CNS structures thought to be implicated in the action of the phenothiazine compounds. The film presents E.E.G. records from both cortical and sub-cortical regions of monkey brains, demonstrates neurological studies in animals which have provided clues to sights and mechanisms of action, and reviews the chemistry and the clinical observations which seem to be most relevant to the question of loci and modes of activity. The theoretical material and the clinical observations are presented in animation. Animal pharmacology material is presented in live action.

*** Resuscitation of the Newborn**

*Colour, 25 minutes.*

Resuscitation of the Newborn illustrates the essential principles involved in the resuscitation of infants who do not breathe—or whose respiration is impaired—at birth. The procedures shown are those developed by the Special Committee on Infant Mortality of the Medical Society of the County of New York. Through live-action delivery-room photography of actual resuscitations and through animation, the procedures and apparatus necessary for effective resuscitation are shown. The Apgar scoring system by which the clinical status of the infant can be rapidly assessed is demonstrated. The physiology of pre- and post-natal oxygenation and the factors that may contribute to producing respiratory depression in the newborn are described.

*** Stelazine—A New Antipsychotic Agent**

*Colour, 12 minutes.*

This film is intended only for Mental Hospital Physicians and nurses. It was made specifically as an aid in the use of Stelazine and not as an attempt to prove Stelazine's efficacy. It quickly reviews indications, dosage and results, but its main emphasis is on side-effects, what to expect, how to handle them. It has neither patient interviews, nor before and after sequences.

**A New Chapter**

*Black and white, 28 minutes.*

This film serves as a discussion tool to help the patient understand and manage his feelings about going home, and to introduce him to information from the hospital about after-care services in his community. Designed specifically for use with discussion groups of patients either before or after discharge, this film describes the apprehension and fears of one former patient who leaves the hospital to live with his brother. His family doctor, a symbolic representation of community after-care resources, helps him dispel these fears. A New Chapter once shown to relatives, friends of patients, or the lay public in general, serves to widen understanding of some of the problems faced by the returning mental patient.

*** Smith Kline & French Psychiatric Newsreel, Issues Nos. 1 and 2**

*Colour, approximately 30 minutes.*

These are film reports on current developments in psychiatry from various hospitals in the U.K. and the U.S.A.

*** Bladderflap Ureteroplasty**

*Colour, 30 minutes.*

Of interest to all doctors, but particularly to urologists. It concerns a special procedure for the replacement of a portion of the lower ureter using a full-thickness flap of urinary bladder as a substitute. The advantages of this technique, according to the advocates, avoids the use of isolated segments of the large bowel, ileum, etc., which may in turn cause complications.

*** Urinary Tract Infections—Furadantin**

*Colour, 20 minutes.*

This film discusses the incidence of urinary tract infections compared to other common ailments from child to adult, and the treatment of genitourinary infections.

## A MEDICAL TOUR OF EUROPE

A fourth medical tour of Europe for a group of South African doctors and their wives will take place from 28 April to 3 June 1961.

The medical programme, arranged by Mr. P. B. Mayer, Medical Bookseller, of P.O. Box 713, Cape Town, will include visits to Clinics, Universities, Hospitals and various specialized medical centres in Switzerland, Denmark and England to suit the special interests of the individual members. The group will also visit a well-known Swiss spa (Bad Ragaz) to study special therapeutic methods.

There will also be a varied programme of sightseeing which will include visits to Rome, Geneva, Berne, Lugano, Zurich, Grindelwald, Paris, Amsterdam, Copenhagen and London.

Members may extend their stay in Europe for additional postgraduate work or touring upon completion of the general programme.

* * *

## POTENTIALLY HARMFUL DRUGS

### SIXTH SCHEDULE*

This Schedule now includes:

Allylisopropylacetylurea.

Amidopyrine, Amidopyrine salts, preparations, admixtures and derivatives containing Amidopyrine and its salts.

Antibiotics, any antimicrobial substance synthesized by bacteria, fungi or protozoa, and any substance the chemical properties of which are identical with or similar to any such antimicrobial substance but which is not produced from living organisms, being a substance which is used in the specific treatment of infections, their salts, derivatives, preparations and admixtures containing them, except Bacitracin, Neomycin, Tyrothricin and Xanthocillin when intended for topical application and excepting those substances, derivatives, preparations and admixtures registered and sold under the provisions of the Fertilizers, Farm Feeds, Seeds and Remedies Act, 1947 (Act No. 36 of 1947).

Barbituric acid, Barbituric acid salts. Barbituric acid derivatives. Barbituric acid derivative salts. Compounds of the foregoing with any other substance except preparations, admixtures and derivatives:

i. Containing one-quarter grain per minimum recommended or prescribed dose or less of any of these in association with medicinal substances;

ii. Containing not more than one-half grain per minimum recommended or prescribed dose of these substances in combination with:

(*a*) Not less than five grains theobromine; or

(*b*) Not less than one-quarter grain of ephedrine; *or*

(*c*) Not less than one and one-half grains of theophylline ethylenediamine.

Benactyzine, its salts, molecular compounds, esters, derivatives, preparations and admixtures of the foregoing except preparations and admixtures containing 1 milligram or less per dose.

Beta-amino-propylbenzene and Beta-amino-isopropylbenzene. Their derivatives including those obtained by the substitution of one or more hydrogen atoms by another radical. Salts of any of the above. Preparations and admixtures of all the foregoing, except when used as a vasconstrictor and decongestant in antihistaminic nasal and eye drops and when

* Inserted by Act No. 29 of 1954.

contained in appliances for inhalation in which the poison is absorbed in inert solid material.

Dicoumarol. Ethyl biscoumacetate. Anti-coagulants, when used in rodenticides and vermicides.

Di-isopropyl fluorophosphonate and preparations, admixtures and derivatives thereof.

Dinitrocresols. Dinitrophenols. Dinitronaphthols. Dinitrothymols. Preparations, admixtures and derivatives containing the foregoing, except preparations, admixtures and derivatives not intended for the treatment of human ailments.

Hormones (natural or synthetic), except when registered and sold under the provisions of the Fertilizers, Farm Feeds, Seeds and Remedies Act, 1947, and except Insulin and Adrenaline.

Iproniazid and its salts.

Oestrogens (natural or synthetic), preparations, admixtures and derivatives thereof, except those substances, preparations, admixtures and derivatives thereof registered and sold under the provisions of the Fertilizers, Farm Feeds, Seeds and Remedies Act, 1947.

Para - acetylamino - benzaldehyde - thiosemicarbozone (also known as thiosemicarbozone).

Para-aminobenzenesulphonamide. Salts of para-aminobenzenesulphonamide. Derivatives of para-aminobenzenesulphonamide having any of the hydrogen atoms of the para-amino group of the sulphonamide group substituted by another radical, and their salts. Substances, preparations, admixtures and derivatives containing the foregoing, except those substances and preparations, admixtures and derivatives thereof intended for external use and except those substances, preparations, admixtures and derivatives registered and sold under the provisions of the Fertilizers, Farm Feeds, Seeds and Remedies Act, 1947.

Paraldehyde and preparations, admixtures and derivatives, thereof.

Phenothiazine, its salts, molecular compounds, esters, derivatives, preparations and admixtures containing them, these being:

Promazine, its salts,
Perphenazine,
Pecazine,
Chlorpromazine, its salts,
Prochlorpromazine, its salts,
Fluopromazine, its salts,
Trifluoperazine, its salts,
Thiopropazate, its salts,

Ethopropazine, its salts, excluding phenothiazine as such for veterinary use, and its salts, molecular compounds, esters and derivatives having essentially anthihistaminic properties or with specific effect in motion sickness and vestibular dysfunction, these being:

Promethazine, its salts,
Pyrathiazine,
Promethazine theoclate, preparations and admixtures of all the foregoing.

Phenylbutazone and preparations, admixtures and derivatives thereof.

Rauwolfia serpentina, preparations or admixtures or derivatives containing one-tenth or more per cent of the alkaloids of Rauwolfia serpentina; substances derived from Rauwolfia serpentina, its alkaloids, their molecular compounds and derivatives, these being:

Alseroxylon,
Desephidine,
Rescinnamine,
Reserpine, preparations and admixtures thereof.
Tetraethylthiuram disulphide.

Urethanes and ureides, all poisonous forms of. Preparations, admixtures and derivatives of the foregoing, except preparations, admixtures and derivatives not intended for the treatment of human ailments.

Azacyclonon (α-Diphenylpiperid-4-yl-methanol) its salts and preparations and admixtures thereof.

Deanol (para-aceto-amido benzoate or 2-Dimethylaminoethanol) derivatives, preparations and admixtures thereof.

Imipramine (1 - (3 - Dimethylaminopropyl) - 4 : 5 - dihydro-2 : 3-6 : 7-dibenzapine), its salts, derivatives, preparations and admixtures thereof.

Ethinamate (1-Ethynylcyclohexyl carbonate), its salts, molecular compounds, esters, derivatives, preparations and admixtures thereof.

Propanediol (Propane-1 : 2-diol), its salts, molecular compounds, esters, derivatives, preparations and admixtures containing them, these being:

Mephenesin;
Meprobamate.

Phenmetrazine (3-Methyl-2-phenylmorpholine or Tetrahydro-3-methyl-2-phenyl-1 : 4-Oxazone); its salts, preparations and admixtures containing phenmetrazine or its salts.

Methyl phenidate, its salts, molecular compounds, esters, derivatives, preparations and admixtures thereof.

## PREPARATIONS AND APPLIANCES

### PENVIKAL GRANULES

Maybaker (S.A.) (Pty) Ltd. announce the introduction of **Penvikal** brand potassium penicillin V granules for the extemporaneous preparation of 1½ fl. oz. of oral solution, each teaspoonful of which contains 125 mg. penicillin V (as potassium salt). The solution, prepared by the addition of water to the granules, should retain its potency under normal conditions of storage for 7 days in a cool place. The suggested average adult therapeutic dose of **Penvikal** is 125 mg. to 250 mg. at intervals of from 2 to 4 hours, usually 250 mg. 4-hourly being given. The average dosage for children is half this and infants may be given a quarter of the adult dose. These quantities may be increased at the discretion of the physician.

Potassium penicillin V is indicated in the treatment of infections due to most penicillin-sensitive organisms, including pneumococci, streptococci, staphylococci and some bacilli. It has been used with success in the treatment of lobar and broncho-pneumonia, otitis media, throat infections, puerperal sepsis, erysipelas, cutaneous anthrax, bacterial endocarditis, pemphigus neonatorum, acute gonococcal urethritis and staphylococcal infections. Potassium penicillin V may also be employed for prophylactic purposes including the prevention of streptococcal infection in rheumatic fever and for the prevention of transient bacteraemia following surgical trauma within the oral cavity in patients with heart disease or congenital heart defect.

**Penvikal** granules are supplied in a container to which 25 ml. of water should be added and the granules should be shaken until dissolved. In addition to granules **Penvikal** is available as tablets with break-lines containing respectively 125 mg. and 250 mg. penicillin V (as potassium salt).

### MELSEDIN

A NEW ORAL NON-BARBITURATE HYPNOTIC

**Melsedin** is a new, oral non-barbiturate hypnotic with an intermediate duration of action. It is chemically distinct from all other hypnotics and is a derivative of quinazolone (2-methyl-3-0-tolyl-4-quinazolone hydrochloride) which has been given the B.P. Commission Approved Name of methaqualone hydrochloride.


In adults the hypnotic dose of **Melsedin** is 150 mg. but occasionally 300 mg. may be required at first in some patients. In children over 7 the hypnotic dose is half the adult dose.

Sleep usually occurs in less than an hour and lasts from 6-8 hours. Patients wake refreshed and normally there is no hangover.

In therapeutic doses there are no reports so far of a depressant action on the respiratory, cardiovascular or haemopoietic systems; nor are there any reports of damage to liver or kidney. Toxicity is very low and side effects (slight nausea and heartburn) are relatively unimportant. It is non-cumulative and rapidly excreted and is non-addictive.

One tablet of 150 mg. of methaqualone hydrochloride (**Melsedin**) has been shown to be roughly equivalent in effect to 200 mg. amylbarbitone, 100 mg. butobarbitone, 100 mg. quinalbarbitone, 100 mg. pentobarbitone or 200 mg. cyclobarbitone.

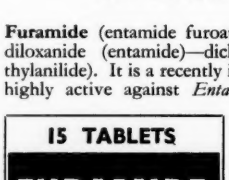
**Melsedin** is presented in the form of tablets each containing 150 mg. methaqualone hydrochloride in containers of 25, 100 and 500.

*Further information may be obtained from:*

B.P.D. (S.A.) (Pty.) Ltd., P.O. Box 45, Jeppestown, Johannesburg. *Telephone:* 24-0351.

### FURAMIDE: A NEW AMOEBICIDE

**Furamide** (entamide furoate) is the furoate ester of diloxanide (entamide)—dichloroacet-4-hydroxy-N-methylanilide). It is a recently introduced oral amoebicide highly active against *Entamoeba histolytica.*




**Furamide** relieves the symptoms of amoebic dysentery and other forms of intestinal amoebiasis within a few days, effecting a complete cure in 10 days. Cure rates of 75-80% in the acute stage and of 90-100% in the chronic condition have been reported. The drug does not upset the bowel flora and does not have the high relapse rates associated with antibiotics.

In adults, treatment consists of 0.5 g. Entamide furoate 3 times a day for 10 days. Children should receive approximately 20 mg. per Kg. (9 mg. per lb.) body weight daily (in divided doses) for 10 days. Bed rest is not required (unless the clinical condition of the patient warrants it) and no special dietary restrictions or enemas are involved.

**Furamide** is completely non-toxic and causes no serious side effects, although flatulence may occasionally occur. No allergic reactions have been reported.

**Furamide** is presented in the form of tablets, each containing 0.5 g. Entamide furoate and is available in containers of 15 and 250.

*Further information may be obtained from:*

B.P.D. (S.A.) (Pty.) Ltd., P.O. Box 45, Jeppestown, Johannesburg. *Telephone:* 24-0351.

## REVIEWS OF BOOKS

### GREENHILL'S OBSTETRICS

*Obstetrics.* By J. P. Greenhill, M.D., F.A.C.S., F.I.C.S. (Hon.). (1960. Pp. 1052 + Index. With 903 Figs. $17).
Philadelphia and London: W. B. Saunders Company.

This twelfth edition of DeLee's original textbook is the fifth occasion on which it has been edited by Dr. J. P. Greenhill, who recognizes 'the vast and almost unbelievable recent advances in all branches of medicine, including obstetrics,' which have taken place in recent years. The new edition has once again required the assistance of a distinguished army of collaborators.

South African readers will be particularly interested to peruse the (illustrated) account (pp. 278–279) of the decompression suit evolved by Prof. O. S. Heyns, of Johannesburg. Professor Heyns' technique facilitates the first stage of labour and also has a marked effect in relieving pain in this stage. The rationale of decompression is that the lowered pressure allows the abdominal wall to bulge forward, thus permitting the uterus to become more spherical and contract more efficiently, because it is not resisted by the tense abdominal wall.

'Decompression even stimulates early labour, while the contractions are still weak . . . spurious, tardy and inertial labors become progressive by decompression, but labor ceases or is definitely slowed down as soon as the patient is removed from the suit. Spectacular results are, however, obtained only with the ideal, irrevocable type of labor. The first stage is reduced to half or less than the average time in more than 70 per cent of primigravidas: there is substantial pain relief in more than 90 per cent of labors.'

In a very useful summary of the available biological tests for pregnancy the extremely unreliable male amphibian test is described fairly fully. The omission of the well known and almost universally employed *Xenopus laevis* test has, for some obscure reason, been omitted. This test (performed on the South African female clawed toad) was first described by Shapiro and Zwarenstein in 1933. It has a very high degree of accuracy and reliability and should certainly find mention in a modern survey of biological tests for pregnancy.

An extremely interesting chapter deals with *Medicomoral Problems* in which Dr. Schmitz sets out briefly the Catholic viewpoint on the common moral problems which may concern both the patient and his doctor.

The basic plan of the book deals with conventional obstetrics in 2 large sections, viz.:

1. *Physiology of Reproduction, Pregnancy, Labor and the Puerperium.*

2. *Pathology of Pregnancy, Labor and the Puerperium.*

Dr. I. Davidsohn contributes an extremely valuable chapter on *Erythroblastosis*, in which the vital importance of early exsanguination-transfusion is stressed. The account of operative obstetrics is extremely comprehensive and the attitude of the authors, in general, reflects a healthy conservatism.

This encyclopaedic text (which should be invaluable to the student as well as the practising doctor) concludes with a practical account of the technique of circumcision.

## XYLOCAINE

*Xylocaine: The Pharmacological Basis of its Clinical Use.* By Sten Wielding. (1959. Pp. 133 + Index. With 24 Figs.).
Uppsala, Sweden: Almqvist & Wiksells Boktryckeri AB.

The extensive use of Xylocaine as a local anaesthetic is based on the excellent fundamental and scientific pharmacological study of this drug by Prof. L. Goldberg of the Department of Pharmacology, Karolinska Institute, Stockholm. Extensive clinical trials followed, resulting in the release of the drug at the beginning of 1948 for general use in Sweden. It was approved by the Federal authorities in Washington in the same year and soon made its way into the British Pharmacopoeia.

Dr. Wielding surveys the pharmacology and toxicology of Xylocaine in the present monograph, making available all the information on these aspects of the drug published to the end of 1958.

The value of the monograph is enhanced by the inclusion of a considerable amount of unpublished material resulting from the author's personal investigations. Clinical investigations, however, are referred to 'only insofar as they throw light upon special pharmacological problems' (p. 15).

Dr. Torsten Gordh, of the Department of Anaesthesiology of the Karolinska Sjukhuset, contributes a *Foreword* in which he endorses Xylocaine as a 'reliable and highly effective local anaesthetic. To all appearances it will come into even wider use among practitioners and at clinics and institutions in many parts of the world.'

## BACTERIOLOGY

*Mackie and McCartney's Handbook of Bacteriology.* Ed. by Robert Cruickshank, M.D., F.R.C.P., D.P.H., F.R.S.E. (1960. Pp. 949 + Index. With 45 Figs. 40s. net. Postage 2s. 9d.).
Edinburgh: E. & S. Livingstone Ltd.

Mackie and McCartney's *Handbook of Bacteriology* is a standard work on which innumerable generations of medical students have been raised. The new (10th) edition is edited by Prof. R. Cruickshank of the University of Edinburgh. He is assisted by a panel of distinguished contributors.

The revival of interest in bacteriology (sparked off by the discovery of antibiotics) is reflected in the modern teaching of the subject. Medical practitioners who graduated before Fleming's discovery was exploited will find this handbook a valuable source of reference. Its importance for the student remains undiminished.

## THE MEDICAL ILLUSTRATOR

*Illustrating Medicine and Surgery.* By Margaret C. McLarty, D.A. (Edin.). (1960. Pp. 155 + Index. With 178 Figs. 37s. 6d.).
Edinburgh and London: E. & S. Livingstone Limited.

The author of this interesting manual is a foundation member of the Medical Artists' Association of Great Britain. She is also the artist to the United Oxford Hospitals and has acquired considerable distinction as a medical illustrator who has raised her work to the status of medical artistry.

Its value to the medical author is due entirely to the magnificent manner in which it indicates what adequate illustration is capable of doing. No practitioner preparing a paper for publication and which requires illustration should fail to consult this excellent guide. Even authors gifted with drawing talents will profit very handsomely from a study of this volume.

## PRENATAL CARE

*Symposium on Prenatal Care: The Collected Papers and Discussions Presented at the Symposium held in Groningen—Rotterdam,* 1–6 June 1959. (Pp. 472 + XII. With 152 Figs. 91 Tables and 6 Graphs. Cloth bound. $7.50).
Groningen: P. Noordhoff Ltd.

At the beginning of June last year a very comprehensive *Symposium on Prenatal Care* was organized by the University of Groningen and the Medical Centre of the city of Rotterdam. About 100 specialists from different fields of scientific activity met to discuss problems of antenatal supervision.

The focal point of the discussions clearly centred on endocrine disturbances, but the organization of prenatal care, foetal anoxia, diabetes and pregnancy, sterility, etc. were also comprehensively surveyed. An interesting account of AID led to discussion in which the Mexican view excluded artificial insemination as 'not of human medicine' (p. 360). Dr. W. W. Williams, well known for his fundamental contributions to the study of sterility, stressed the value of the procedure and emphasized the importance of secrecy. In his view AID has led to 'the happiest, the most satisfied and the most appreciative group of patients which I have' (p. 361). The Dutch view at the Symposium appeared to be hostile to the practice of AID.

Bourg reported a preliminary study (with the phase contrast microscope) of exfoliative cytology during pregnancy. This may open up valuable ways of determining whether a pregnancy is hormonally normal or not.

The *Symposium* concluded with an interesting survey summarizing perinatal pathology.

### VITAMIN DISORDERS

*Vitaminmangelkrankheiten Symptome und Untersuchungsmethoden.* By Prof. H. Gounelle and Dr. C. Marnay. (1960. Pp. 127. With 10 Figs. DM 5.80).
Stuttgart: Georg Thieme Verlag.

This little book has been designed as a pocket-sized manual. The various vitamins are surveyed physiologically and clinically, significant features being illustrated with line drawings.

The handbook comprises a useful summary for those able to read German.

### ADVANCES IN INTERNAL MEDICINE

*Advances in Internal Medicine* (*Volume X*). Ed. by William Dock, M.D. and I. Snapper, M.D. (1960. Pp. 358 + Index. $10.50).
Chicago: Year Book Publishers, Inc.

This annual record of medical progress is a welcome addition to the library of the practitioner seeking to keep abreast of modern medical events.

As is to be expected, in view of recent developments, a considerable section of the volume is devoted to congenital and acquired heart disease, including the newer diagnostic techniques as well as the indications for and the results of surgical treatment.

The *Malabsorption Syndrome* is reviewed by Gardner and Strauss. Grob deals with the *Diagnosis and Management of the Curable Forms of Hypertension.* He stresses the importance of determining the blood level or excretion of catechol amines and the essentiality of instituting curative measures in any form of secondary hypertension 'before irreversible renal vascular changes occur, since these may perpetuate the hypertension despite elimination of the original cause' (p. 251). Horwith and Stokes describe the results of treating Cushing's syndrome by total adrenalectomy. They include 'moderate or severe emotional disturbance, moderate osteoporosis, and persistent diastolic hypertension as the three major reasons for surgical intervention in cases of Cushing's syndrome' (p. 291). The results with these criteria for surgery have apparently been most encouraging.

Eiseman and Silen review the endocrinology of peptic ulcer and conclude (not surprisingly) that there is no clear-cut relation between peptic ulceration and diseases of the endocrine glands. The problem could, however, be usefully pursued by further study of ulceration resulting from adrenocortical steroids and occurring in association with hyperparathyroidism.

Jacobson reviews control of *Erythropoiesis* and discusses the clinical significance of erythropoietin, a substance believed to be capable of stimulating the production of red cells. Early in many clinical anaemias there is a rise in plasma erythropoietin.

In a concluding chapter Liebow deals with *Bronchioloalveolar Carcinoma,* a tumour accounting for from 0.5 to 5% of all lung carcinoma. In discussing etiology the author notes that these tumours have been reported after exposure to beryllium, thorium dioxide and lipoid pneumonia caused by nose drops, 'but no common factor has emerged' (p. 343). Viruses have not been incriminated and, as similar tumours have been reported in dogs and sheep, it is not surprising that no attempt has been made to incriminate cigarette smoking as a cause of the cancer.

The editors are to be congratulated on this very lively survey of current advances in internal medicine.

### POSTURE

*Active Alerted Posture.* By W. E. Tucker, *C.V.O., M.B.E.,* T.D., M.A., M.B., B.Ch., F.R.C.S. (1960. Pp. 61 + Index. With 24 Figs. 10s. 6d. net).
Edinburgh and London: E. & S. Livingstone, Ltd.

This short monograph on human posture is written by an eminent orthopaedic surgeon. The book deals with the effects of postural strain as a causal factor in joint and muscular dysfunction with the consequent joint disease sequelae.

The volume classifies posture, its physiology and its mechanics, and specifically illustrates the effects of poor posture. A description is given of what the author classifies as *Active Alerted Posture* in an endeavour to avoid the sequelae.

The book is intended for general practitioners and medical auxiliaries, i.e. physiotherapists, remedial gymnasts as well as educational authorities.

It is an essentially practical approach and would be of interest and assistance to all medical practitioners.

## CORRESPONDENCE

### MONTY BARANOV MEMORIAL PRIZE

*To the Editor*: May we draw the attention of the medical fraternity, through the channels of your Journal, to the 'Monty Baranov Memorial Prize,' the details of which are as follows:

The prize is awarded every 3 years for an essay on either a purely ophthalmological subject or a medical subject having a direct bearing on ophthalmology.

Candidates must be medical graduates of the University, who had completed the Final Professional Examination not longer than 50 calendar months before 1 February of the year in which the prize is awarded.

Essays must be submitted, in typescript, to the Registrar of the University not later than 1 February in the year of competition, and must bear the candidate's pseudonym and not his name. An envelope bearing the candidate's pseudonym and containing his name must be submited with the essay.

If there is no essay of sufficient merit the prize will be withheld.

The value of the prize wil be about £35.

P. Knocker.
*Honorary Secretary.*

Medical Graduates Association,
University of the Witwatersrand,
Medical School, Hospital Street, Johannesburg.